Maths Assessment – Year 5

Name: .....

Band 5 Maths Assessment

Autumn Term (Beginning)

B

Number and Place Value

- Read, write, order and compare numbers to at least 1,000,000 (1 million) and say the value of each digit
- Read, write, order and compare numbers with up to three dp
- Identify and use thousandths and can explain how they relate to tenths and hundredths and their decimal equivalents
- **5NPV–1 Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.**
- **5NPV–2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and nonstandard partitioning.**
- **5NPV–3 Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.**
- **5NPV–4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts.**
- **5MD–1 X and ÷ nos (Including decimals) by 10 and 100; understand this as equivalent to making a no 10 or 100 times the size, or 1 tenth or 1 hundredth times the size**
- Keep multiplying a number by 10 or 100 - to 1,000,000 and count back.
- Use negative numbers in context when looking at temperature or money; counting forwards or backwards through 0
- Round n°s to 1,000,000 to nearest 10,100,1000,10,000 or 1000,000; round numbers with two decimal places
- Solve number and practical problems that involve ordering and comparing numbers up to 1,000,000, counting forwards or backwards in steps, negative numbers and rounding
- Add or subtract tenths, or whole numbers and tenths, mentally.
- Solve problems involving numbers with up to three decimal places
- Read Roman numerals to 1000 and recognise years.
- Recognise and describe linear number sequences.

Addition and Subtraction

- + and - 2 and 3 digit numbers in my head, also increasingly large numbers
- Add and Subtract numbers with more than 4 digits using written methods
- Add and subtract decimals, including a mix of whole numbers and decimals, decimals with different numbers of decimal places, and compliments of 1
- Solve + and - problems needing more than one step and can work out which operation and method is the most suitable

Multiplication and Division

- **5MD–2 Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.**
- **5NF–1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.**
- Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.
- Establish whether a number up to 100 is prime (÷ by 2,3,5 and 7) and recall prime numbers up to 19.
- Recognise and use square numbers and cube numbers and the notation
- **5MD–3 Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.**
- Multiply numbers with up to 4 digits by a two digit number (columnar)
- **5NF–2 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth)**

B+

Spring Term (Working Within)

W

Number and Place Value

- Solve problems involving multiplication and division, including using factors and multiples, squares and cubes

Addition and Subtraction

- Continues to build on and apply previously taught concepts.

Properties of Shape and Geometry

- Continues to build on and apply previously taught concepts

Multiplication and Division

- **5MD–4 Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context.**

Fractions and Decimals

- **5F–1 Find non-unit fractions of quantities.**
- **F–2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system**
- **5F–3 Recall decimal fraction equivalents for 1/2, ¼, 1/5 and 1/10 and for multiples of these proper fractions.**
- Compare and order fractions whose denominators are all multiples of the same number
- Find, name and write equivalent fractions of a given fraction including tenths and hundredths
- Identify mixed numbers and improper fractions and convert from one to another such as 2/5 + 4/5 = 1 1/5.
- Add and subtract fractions whose denominators are all multiples of the same number (and fractions with denominators that are the same).
- Multiply proper fractions by whole numbers using objects and pictures.
- Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates
- Read and write decimal numbers as fractions such as 0.71 = 71/100

Measurement

- **5NPV–5: To convert between different forms of metric measurement, eg. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram, litre and millilitre, including using common decimals and fractions.**
- **5G–2 Compare areas and calculate the area of rectangles (including squares) using standard units.**
- Measure and calculate perimeter of composite rectilinear shapes in cm and m.
- Understand and compare equivalences between metric units and common imperial units. These might include: inches, pounds or pints.
- Use all four operations to solve problems involving measure, eg length, mass, volume using decimal notation including scaling.
- Estimate volume by using cm3 blocks to build cuboids (including cubes) and capacity by using water and different containers

W+

Summer Term (Secure)

S

Number and Place Value

- Continues to build on and apply previously taught concepts.

Addition and Subtraction

- Continues to build on and apply previously taught concepts.

Properties of Shape and Geometry

- Tell the difference between regular and irregular polygons, I can do this using reasoning about equal sides and angles
- Identify 3D shapes, including cubes and other cuboids, from 2D representations (nets)
- **5G–1 Compare angles, estimate (acute, obtuse and reflex) and measure angles in degrees (°) and draw angles of a given size.**
- Identify other multiples of 90^0
- Identify angles at a point and one whole turn
- Identify angles at a point on a straight line and half a turn (total 180^0)
- Use the properties of rectangles to find related facts, missing lengths and missing angles
- Measure lines to the nearest mm and measure with a protractor.
- Draw given angles and measure them in degrees
- Identify, describe and represent the position of a shape following a reflection or translation. I can use mathematical vocabulary to explain this and I know that the shape has not changed – link this to co-ordinates.

Multiplication and Division

- Continues to build on and apply previously taught concepts.

Fractions and Decimals

- Identify the percent symbol (%) and how it relates to parts per hundred, hundredths and decimals
- Solve problems which require knowing % and dec. equivalents of ½, ¼, 1/5, 2/5, 4/5 & fractions with a denominator of a multiple of 10 or 25.

Measurement

- Complete, read and interpret information in tables, including timetables

Statistics

- Solve comparison, sum and difference problems using information presented in a line graph

Greater Depth

S+

- Solve 2-step problems, independently keeping a view of 'the bigger picture'.
- Solve problems that involve more than one area of maths (eg. area and scaling)
- Explain how a multi-step problem can be solved, using concrete materials and pictorial representations (including bar models).
- Notice and explain the most efficient way of approaching an arithmetic question.
- In independent arithmetic tests, calculate with fluency and confidence. Consistently misses very few marks.